

REMARKS

Claims 1-17 are pending in the present application. Claims 1, 3, 5, 8-9, and 13-15 have been amended, and claims 16-17 have been added. Claim 12 stands withdrawn from consideration as being directed to a non-elected invention. Reconsideration of this application, as amended, is respectfully requested.

The amendments made herein to the claims do not incorporate new matter into the application as originally filed. For example, support for the amendments made herein to claims 1 and 13, occurs in the specification at page 3, line 12. Newly added claims 16-17 find support at page 7, lines 16-18 of the specification, with newly added claim 17 also finding support at page 13, line 20 of the specification.

It is noted that the amendments to claim 3, simply put the same into a better grammatical format and change its dependency to a multiple dependency, and that the amendments to claims 5, 8-9 and 14-15 simply change their dependencies to multiple dependencies.

Accordingly, entry of the instant amendment is respectfully requested, since the amendments present rejected claims in better form for consideration on appeal, and do not raise substantial new issues for the Examiner's consideration.

Rejections Under 35 USC § 103

Claims 1-11 and 13-15 stand rejected under 35 USC §103(a) as being unpatentable over Canadian Patent Application Publication No. 2,047,010 to Burkhardt in view of JP 2000-212866 to Iwata et al. These rejections are respectfully traversed based on the following considerations.

First, the Examiner is respectfully requested to again review the earlier filed remarks at pages 7-13 of the response filed on October 7, 2003, inasmuch as they remain cogent to show that the outstanding rejection over the cited art of record is improper and cannot stand. *Said remarks are incorporated herein by reference in their entirety.*

The Present Invention and Its Advantages

The present invention is directed to a cleaning sheet, which includes an air-laid non-woven fabric having 10 to 90% by weight of thermoplastic fibers having a fiber length of 2 to 15 mm and a fineness of 10 to 150 dtex (i.e., thick fibers) and 10 to 90% by weight of cellulosic fibers (see claim 1). Claim 2 provides that the cleaning sheet is impregnated with an aqueous detergent. Independent claim 13 is similar to claim 1, but also recites "said thermoplastic fibers are bonded at intersections thereof." Newly added claims 16-17 also require the presence of "the presence of 1 to 50% by weight of another

thermoplastic fiber “having a fiber length of 2 to 15 mm” and a fineness of either 0.5 to 5 dtex (claim 16) or 0.5 to 3 dtex (claim 17) (i.e., thin fibers). The thermoplastic fibers (i.e., both the thick and thin fibers) have a fiber length of 2 to 15mm (see claims 1, 13, 16 and 17).

Furthermore, the air-laid non-woven fabric has a number of tips of said “thick” thermoplastic fibers “forming the non-woven fabric” exposed on the surface of the cleaning sheet to have the capability of scouring or scraping dirt off of a soiled surface. The number of tips of the thermoplastic fibers is 20-4000/cm² (see claims 1 and 13).

The cleaning sheet according to the present invention exhibits excellent scouring or scraping properties against soil by using thermoplastic fibers of a non-woven fabric that are exposed on the surface of the cleaning sheet. In addition, the cleaning sheet according to the present invention does not scratch a surface to be cleaned. Applicants respectfully submit that the references relied on by the Examiner fail to teach or suggest the present invention and therefore are unable to accomplish the advantages of the present invention.

Distinctions Over the Cited Art

The Examiner has asserted that Burkhardt discloses the cleaning sheet of the present invention, except for the substrate sheet comprising a mixture of cellulosic and thermoplastic fibers and the number of tips of the surface.

However, the Examiner relies on the Iwata et al. reference to modify Burkhardt to include cellulosic and thermoplastic fibers. Also, the Examiner has taken the position that the number of tips of thermoplastic fibers would be an obvious modification of Burkhardt. Applicants respectfully submit that the combination of references relied on by the Examiner fail to render obvious the presently claimed invention.

In support of the above contention, the Examiner is requested to consider newly amended claims 1 and 13, which recite an additional limitation not found in the cited art, i.e., the limitation of an "air-laid non-woven sheet". In this respect, it is submitted that one of ordinary skill in the art upon considering the teachings of the cited art, either singularly or in combination would in no way be motivated to arrive at the instant invention as claimed. This is true of each of independent claims 1 and 13, and the claims that depend therefrom, including newly added claims 16-17.

In particular, Burkhardt discloses plastic fibers 3 that are attached to a substrate 2 or an absorbent 5. Referring to page 4, last paragraph of Burkhardt, the following is stated:

1 in Fig. 1 is a device in the form of a cleaning cloth that has a substrate 2 which consists of a fabric made from plastic fibres to which plastic fibres 3 and 4 are attached. These plastic fibres 3 and 4 are made of polyester and are glued at one end to the substrate 2 in a way not illustrated in the drawing. (emphasis added).

In view of the above descriptions in Burkhardt, it becomes clear that the Burkhardt reference fails to disclose an "air-laid non-woven fabric having a number of tips of said thermoplastic fibers forming the non-woven fabric exposed on a surface of said cleaning sheet" as recited in independent claims 1 and 13 of the present invention.

With regard to the Examiner's reliance on Iwata et al., the Examiner has only relied on this reference for its teaching of a non-woven fabric having cellulosic fibers and thermoplastic fibers.

It is submitted that the cited Iwata et al reference does not cure the deficiencies of the cited primary reference, and it does not teach or otherwise disclose or render obvious applicant's preparation of the instantly claimed cleaning sheet containing an "air-laid non-woven fabric" as recited in pending claims 1-11 and 13-17, which are under consideration at present.

Further, there is no disclosure in Iwata et al. with regard to the preparation of an "air-laid non-woven fabric having a number of tips of said thermoplastic fibers forming the non-woven fabric exposed on the surface of said cleaning sheet" as recited in the independent claims of the present invention. Accordingly, Iwata et al. fails to make up for the deficiencies of Burkhardt. This is especially true, when one considers the limitations of claim 1 as a whole, which recites a cleaning sheet, containing:

an air-laid non-woven fabric having 10 to 90% by weight of thermoplastic fibers having a fiber length of 2 to 15 mm and a fineness of 10 to 150 dtex, and 10 to 90% by weight of cellulosic fibers, said air-laid non-woven fabric having a number of tips of said thermoplastic fibers forming the non-woven fabric exposed on the surface of said cleaning sheet to have capability of scouring or scraping dirt off of a soiled surface, wherein said number of tips of said thermoplastic fibers is 20-4000/cm².

With regard to dependent claims 2-11 and 14-17, Applicants respectfully submit that these claims are allowable due to their respective dependence upon allowable independent claims 1 and 13, as well as due to the additional limitations recited by these claims.

In view of the above amendments and remarks, Applicants respectfully submit that claims 1-11 and 13-17 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the rejection under 35 USC § 103 are respectfully requested.

Full-Translation of JP 2000-212866 to Iwata et al.

With the outstanding office action, the Examiner provided a partial translation of the earlier cited JP 2000-212866 to Iwata et al. Because the Examiner did not provide a full translation thereof, Applicants on even date herewith are filing an IDS to provide the Examiner a full translation of JP 2000-212866. This translation has been prepared, and is being filed, in order

to ensure that all relevant parts of the JP 2000-212866 reference are available to the Examiner to study in English.

CONCLUSION

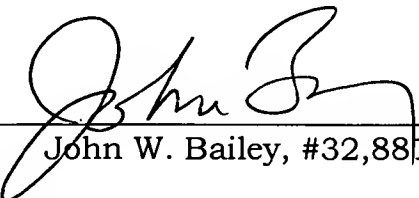
Based on the amendments and remarks presented herein the Examiner is respectfully requested to issue a notice of allowance indicating that the pending claims under consideration (Claims 1-11 and 13-17) are allowable.

If any questions remain regarding the above matters, please contact Applicant's representative John W. Bailey (Reg. No. 32,881), at the phone number listed below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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